WHAT IS CLAIMED IS:

1. A revenue meter for measuring the delivery of electrical energy from an energy supplier to a consumer through an electric circuit, the revenue meter comprising:

bayonet terminals disposed on said meter, said terminals being mateable with matching jaws of a detachable meter mounting device;

a base coupled with said bayonet terminals;

at least one transducer operative to be coupled with said electric circuit and operative to sense at least one of voltage and current in said electric circuit and generate at least one analog signal indicative thereof;

at least one analog to digital converter coupled with said at least one transducer and operative to convert said at least one analog signal to at least one digital sample;

first logic coupled with said at least one analog to digital converter and operative to receive said at least one digital sample and compute at least one value therefrom;

second logic coupled with said first logic and operative to generate first and second display data;

a cover operative to be coupled with said base and operative to be sealed to said detachable meter mounting device to prevent physical access to said first logic;

a display coupled with said second logic and operative to display one of said first display data and said second display data generated by said second logic; and

a variable function input device coupled with said second logic and operative to receive a first input from a user and to cause said second logic to perform:

a first function based on said first input when said first display data is displayed on said display and said first input is received; and

a second function, different from said first function, based on said first input when said second display data is displayed on said display and said first input is received.

2. The revenue meter of claim 1, wherein said cover is further operative to enclose said display.

3. The revenue meter of claim 1, wherein said first function comprises stopping the display from scrolling.

4. The revenue meter of claim 1, wherein said first function comprises incrementing a numeric value.

5. The revenue meter of claim 1, wherein said first function comprises selecting at least one of a previous and next item in a list.

6. The revenue meter of claim 1, wherein said variable function input device comprises a keypad.

7. The revenue meter of claim 1, wherein at least one of said first and second display data is programmable by a user.

8. The revenue meter of claim 1, wherein said display is operative to display graphics.

9. The revenue meter of claim 8, wherein said first display data comprises a phasor diagram.

10. The revenue meter of claim 8, wherein said first display data comprises a histogram of harmonics present in said electric circuit.

11. The revenue meter according to claim 6, wherein said revenue meter comprises a circuit board, said cover being operative to enclose said circuit board, said cover further comprising a keypad and intermediate actuators operative to mechanically couple said keypad with said circuit board.

12. The revenue meter according to claim 11, wherein said keypad further includes a web portion which allows a plunger of said keypad to move in a direction generally perpendicular to said keypad.

13. The revenue meter according to claim 12 wherein the keypad is elastic.

14. The revenue meter according to claim 11, further including a compression plate operative to compress said keypad to said meter cover, to provide a water tight seal.

15. The revenue meter according to claim 14, wherein said compression plate includes a locating portion operative to align said keypad to said intermediate actuators.

16. The revenue meter according to claim 11 wherein said keypad comprises keypad buttons.

17. The revenue meter according to claim 11 wherein said meter cover includes alignment means for aligning said input device to said intermediate actuators.

18. The revenue meter according to claim 17 wherein said alignment means comprises a compression plate with a locating portion.

19. The revenue meter according to claim 1 wherein said variable function input device comprises a touch screen.

20. The revenue meter according to claim 1 wherein said variable function input device comprises a membrane switch.

21. A revenue meter for measuring the delivery of electrical energy from an energy supplier to a consumer through an electric circuit, the revenue meter comprising:

bayonet terminals disposed on said meter, said terminals being mateable with matching jaws of a detachable meter mounting device;

a base coupled with said bayonet terminals;

at least one transducer operative to be coupled with said electric circuit and operative to sense at least one of voltage and current in said electric circuit and generate at least one analog signal indicative thereof;

at least one analog to digital converter coupled with said at least one transducer and operative to convert said at least one analog signal to at least one digital sample;

first logic coupled with said at least one analog to digital converter and operative to receive said at least one digital sample and compute at least one value therefrom;

second logic coupled with said first logic and operative to generate display data, at least one portion of which is capable of being represented graphically, said second logic further operative to implement a data structure operative to contain said display data;

a cover operative to be coupled with said base and operative to be sealed to said detachable meter mounting device to prevent physical access to said first logic;

an input device coupled with said second logic and operative to receive input from a user; and

a display coupled with said second logic and operative to display a graphical representation of said at least one portion of said display data generated by said second logic.

22. The revenue meter of claim 21 wherein said display is disposed within said cover.

23. The revenue meter of claim 21 wherein said display comprises a touch screen.

24. The revenue meter of claim 21 wherein at least one of said first and second logic is operative to implement an operating system.

25. The revenue meter of claim 21 wherein said graphical representation includes a CBEMA plot.

26. The revenue meter of claim 21 wherein said display data further comprises a second portion capable of being represented by text.

27. The revenue meter of claim 26 wherein said text comprises scalable fonts.

28. The revenue meter of claim 26 wherein said display data comprises a sequence of events log.

29. The revenue meter of claim 26 wherein said display data comprises a table.

30. The revenue meter of claim 21 wherein said graphical representation includes a vector diagram.

31. The revenue meter of claim 21 wherein said graphical representation comprises a histogram.

32. The revenue meter of claim 31 wherein said histogram comprises a display of harmonic content present in said electric circuit.

33. The revenue meter of claim 21 wherein said graphical representation includes a graphical progress indicator indicative of a current time of an interval.

34. The revenue meter of claim 21 wherein said input device is operable to enable said user to configure said meter to provide a display of said at least one value.

35. The revenue meter of claim 34 wherein said input device is operable to permit entry of a user password into said revenue meter.

36. A revenue meter for measuring the delivery of electrical energy from an energy supplier to a consumer through an electric circuit, said meter comprising:

a draw-out chassis coupled with said meter and operative to fit within a switchboard enclosure;

terminals disposed on said chassis for engaging matching terminals within said enclosure;

a display;

a meter cover operative to enclose said meter and said display within said enclosure;

a seal coupled with said meter cover and operative to prevent removal of said meter cover and indicate tampering with said meter;

at least one transducer operative to be coupled with said electric circuit and operative to sense at least one of voltage and current in said electric circuit and generate at least one analog signal indicative thereof;

at least one analog to digital converter coupled with said at least one transducer and operative to convert said at least one analog signal to at least one digital sample;

first logic coupled with said at least one analog to digital converter and operative to receive said at least one digital sample and compute at least one value therefrom;

second logic coupled with said first logic and operative to generate display data, at least one portion of which is capable of being represented graphically, said second logic further operative to implement a data structure operative to contain said display data;

an input device coupled with said second logic and operative to interface to a user; and

said display coupled with said second logic and operative to display a graphical representation of said at least one portion of said display data generated by said second logic;

37. The revenue meter of claim 36 wherein said graphical representation includes a vector diagram.

38. The revenue meter of claim 36 wherein said graphical representation comprises a histogram of harmonics present in said electric circuit.

39. The revenue meter of claim 36 wherein said graphical representation includes a graphical progress indicator indicative of a current time of an interval.

40. The revenue meter of claim 36 wherein said input device is operable to enable said user to configure said meter to provide a display of said at least one value.

41. A revenue meter for measuring the delivery of electrical energy from an energy supplier to a consumer through an electric circuit, the revenue meter comprising:

bayonet terminal means for mating said meter with a detachable meter mounting means;

a base coupled to said bayonet terminal means;

transducer means for coupling to said electric circuit, sensing at least one of voltage and current in said electric circuit and generating at least one analog signal indicative thereof;

analog to digital conversion means for coupling with said transducer means and converting said at least one analog signal to at least one digital sample;

processing means for receiving said at least one digital sample, calculating at least one value therefrom and generating display data; at least a portion of which is capable of being represented graphically;

data structure means coupled to said processing means for containing said display data

cover means for coupling with said base means and preventing physical access to said processing means;

means for sealing said cover means to said detachable meter mounting means;

input means coupled with said processing means for interfacing to a user; and

display means coupled with said processing means for displaying graphical representations of said at least one portion of said display data generated by said processing means.

42. A revenue meter for measuring the delivery of electrical energy from an energy supplier to a consumer through an electric circuit, the revenue meter comprising:

bayonet terminal means for mating said meter with matching jaws of detachable meter mounting means;

a base coupled to said bayonet terminal means;

transducer means for coupling to said electric circuit, sensing at least one of voltage and current in said electric circuit and generating at least one analog signal indicative thereof;

analog to digital conversion means for coupling with said transducer means and converting said at least one analog signal to at least one digital sample;

processing means for receiving said at least one digital sample, calculating at least one value therefrom, and generating first and second display data;

cover means for coupling with said base means, and preventing physical access to said processing means;

means for sealing said cover means to said detachable meter mounting means;

display means coupled with said processing means for displaying one of said first display data and said second display data;

variable function input means coupled to said processing means for receiving a first input from a user and performing:

a first function based on said first input when said first display data is displayed on said display and said first input is received; and

a second function, different from said first function, based on said first input when said second display data is displayed on said display and said first input is received.

43. The revenue meter of claim 42, wherein at least one of said first and second display data is programmable by a user.

44. The revenue meter of claim 42, wherein said display means is operative to display graphics.

45. The revenue meter of claim 44, wherein said graphics comprise a phasor diagram.

46. The revenue meter of claim 44, wherein said graphics comprise a histogram of harmonics present in said electric circuit.

47. The revenue meter according to claim 42, further comprising actuation means for mechanically coupling said variable function input means with a circuit board within the revenue meter.

48. The revenue meter according to claim 42, further comprising compression means for compressing said variable function input means to said cover means, to provide a water tight seal.

49. The revenue meter according to claim 48, wherein said compression means comprises locating means for aligning said variable function input means.